

## EFMP Retire and Replace

Below are summary statistics of the EFMP Retire and Replace program data in South Coast Air Quality Management District (SCAQMD) and San Joaquin Air Pollution Control District (SJVAPCD) from July 1, 2015 through September 30, 2016.

**Table 1: Replacement Vehicles by Vehicle Technology**

Replacement Vehicle Technology	SCAQMD		SJVAPCD		All Districts	
	Vehicles	%	Vehicles	%	Vehicles	%
Battery Electric Vehicle	129	17%	88	14%	217	15%
Plug-in Hybrid Electric Vehicle	193	25%	157	24%	350	25%
Conventional Hybrid	309	40%	278	43%	587	42%
Internal Combustion Engine	134	18%	123	19%	247	18%
<b>Total Replacement Vehicles</b>	<b>765</b>		<b>646</b>		<b>1,411</b>	

**Table 2: Summary Statistics (Average) Characteristics of the Retired and Replacement Vehicle**

Vehicle	Vehicle Characteristic	SCAQMD	SJVAPCD	All Districts
	Model Year	2013	2012	2013
	Miles Per Gallon (MPG) <sup>1</sup>	65	60	63
	Mileage at Purchase	27,050	34,696	30,689
	EFMP Incentive	\$ 7,177	\$ 7,364	\$ 7,263
	Total Purchase Price	\$ 20,899	\$ 18,862	\$ 19,967
	Amount Financed	\$ 14,244	\$ 11,472	\$ 12,877
	Interest Rate (Weighted) <sup>2</sup>	4.8%	7.4%	6.0%
	Interest Rate (Unweighted)	5.6%	7.3%	6.5%
	Model Year	1998	1992	1995
	MPG	22	21	21
	Mileage at Retirement	180,387	218,218	197,765

<sup>1</sup> To calculate this average, the MPG-equivalent fuel economy rating is used for battery electric and plug-in hybrid vehicles while the standard MPG rating is used for hybrid and internal combustion engine vehicles.

<sup>2</sup> The interest rate of each loan is weighted by the loan's dollar amount so that the average represents the average interest rate per dollar loaned.

**Table 3: Estimated Pollutant Emission Benefits of Replacement Vehicles<sup>1</sup>**

Pollutant Reduced	SCAQMD	SJVAPCD	All Districts
Greenhouse Gas (Metric tons CO <sub>2</sub> e)	3,282	2,771	6,053
Criteria Pollutants <sup>2</sup> (Tons)	15	13	28

<sup>1</sup> The baseline vehicle (i.e. the retired vehicle) for this estimate is assumed to be model year 1995, while the replacement vehicle is assumed to be model year 2013. This estimate reflects the current distribution of replacement vehicles across the four vehicle technology categories listed in Table 1 above. The replacement vehicles are assumed to be driven 7,500 miles per year. The benefits are calculated for the lifetime of the project, which is three years.

<sup>2</sup> Following the Carl Moyer Program methodology, criteria pollutants emission benefits are calculated as the weighted sum of oxides of nitrogen (NO<sub>x</sub>), reactive organic gases (ROG), and particulate matter (PM). PM is weighted 20 times greater than NO<sub>x</sub> and ROG, which are given equal weight. PM carries a higher weight due to the severity of its health impacts relative to NO<sub>x</sub> and ROG.

**Table 4: Household Income Categories below the Federal Poverty Level (FPL)<sup>1</sup> and Disadvantaged Community (DAC)<sup>2</sup> Participation**

		South Coast		SJV		All Districts	
		Participants	%	Participants	%	Participants	%
	Less than or equal to 225%	678	89%	645	100%	1323	94%
	226% to 300%	63	8%	1	0%	64	5%
	301% to 400%	24	3%	0	0%	24	2%
	Zip Code Containing a DAC	726	95%	646	100%	1372	97%
	DAC Census Tract	362	47%	461	71%	823	58%

<sup>1</sup> <https://aspe.hhs.gov/poverty-guidelines>

<sup>2</sup> <https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/535zipmap.htm>